



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,831	07/28/2004	Stefan Bertil Ohlsson	2003M082	2472
7590 ExxonMobil Chemical Company Law Technology P.O. Box 2149 Baytown, TX 77522-2149			EXAMINER TESKIN, FRED M	
		ART UNIT 1713	PAPER NUMBER	
		MAIL DATE 05/16/2007	DELIVERY MODE PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/796,831	OHLSSON ET AL.	
	Examiner	Art Unit	
	Fred M. Teskin	1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 12 February 2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-124 is/are pending in the application.
- 4a) Of the above claim(s) 23-124 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-22 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 28 July 2004 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date 20040309; 20060830.
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application
- 6) Other: _____.

Art Unit: 1713

Applicants' election with traverse of the invention of Group I, claims 1-22, in the reply filed on February 12, 2007, is acknowledged. The traversal is on the ground(s) that, because the inventions of Groups I and III are drawn to related subject matter, restriction therebetween should not be required. This is not found persuasive because merely alleging that the claims directed to polymer compositions (Group I) and products made therefrom (Group III) define related subject matter does not in and of itself void the requirement, since it is firmly established that division may lie between compositions and products standing in intermediate-final product relationship as alleged in the action requiring restriction. Applicants have not specifically indicated any error in the particular reasons set forth by the examiner to support the conclusion that the claims so grouped define distinct inventions capable of supporting separate patents.

The requirement is still deemed proper and is therefore made FINAL.

Claims 23-124 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected inventions, there being no allowable generic or linking claim. Applicants timely traversed the restriction (election) requirement in the reply filed on February 12, 2007.

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

The abstract of the disclosure is objected to because it is not limited to a single paragraph. Correction is required. See MPEP § 608.01(b)(C).

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: reference numeral 2 of Figure 1. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claims 1-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. More specifically, the following grounds for indefiniteness apply to the indicated claims.

Regarding claim 1, a broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 1 recites the broad recitation "from 0.90 to 0.94", and the claim also recites "preferably 0.91 to 0.935 ... , especially 0.92 to 0.93 ...," which are narrower statements of the range/limitation.

Regarding claim 17, the phrase "such as (an alpha-olefin)" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 1713

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-22 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over US 4988781 (McKinney et al).

McKinney et al disclose homogeneous, modified copolymer of ethylene and an olefinically unsaturated carboxylic acid or (meth)acrylate, prepared in a stirred autoclave (see col. 1, II. 13-15 and col. 3, II. 35-40). The modified copolymer is said to have, *inter alia*, appreciably reduced levels of long chain branching, a melt index in the range of, most preferably, 0.5-25 g/10 min, and contain about 65-99 % of ethylene and about 0.1-35 % of the comonomer, preferably about 1-12 % (col. 5, II. 34-44 and col. 6, II. 1-6). Described properties of the modified copolymer, such as a narrower molecular weight distribution and reduced long chain branching, are obtained by use of a chain transfer agent or telogen (see Examples 2-4, 6 and 8 and col. 10, II. 9-15). The patentees state that the chain transfer agent or telogen is referred to in the ethylene homopolymerization art as a coreactant, since it eventually combines in the copolymerization to form a telomerized copolymer, and list specific compounds including propylene as suitable telogens (see col. 7, II. 41+).

McKinney et al do not explicitly disclose the claim limitations directed to density, number of short chain branches and rheological relaxation time. However, where the

claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes, a *prima facie* case of either anticipation or obviousness is established. *In re Best*, 195 USPQ 430, 433 (CCPA 1977).

In this case, McKinney et al teach production of a modified ethylene copolymer having statistically *shorter chain lengths* and *more branches* in contradistinction to a copolymer comprised of molecules with less branches and statistically longer chain lengths, by a substantially identical process to applicants'; that is, by free radical polymerization in a stirred autoclave using a chain transfer agent that combines in the copolymerization (see col. 6, ll. 1-6 and col. 8, ll. 35+). The instantly claimed polymer is similarly prepared (*cf.*, Specification page 9).

In view of the similarity in preparation procedure and properties (e.g., copolymer composition, melt flow index and reduced long chain branching), there is a plausible basis for inferring that the undisclosed properties of the instantly claimed polymer are intrinsic features of the modified copolymer described in McKinney et al. Where, as here, there is sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not. *In re Spada*, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Claims 1-17 and 19-22 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over US 3029230 (Strauss).

Strauss discloses a telomerized copolymer of ethylene and vinyl acetate containing propane incorporated into the polymer as telogen and which meets the claim

Art Unit: 1713

limitations as to mole % units derived from a copolymerizable ethylenically unsaturated ester as well as density and melt index (see Examples XIII-XV of Table IV and Claim 1 in col. 7).

The claimed parameters of rheological relaxation time and number of short chain branches are not explicitly disclosed; however, since the Strauss copolymer and the applicants' polymer are prepared by substantially similar procedures (i.e., free radical polymerization in an autoclave or tubular reactor in the presence of a chain transfer agent/telogen that incorporates into the polymer chain; see col. 3, ll. 10+ and cf., Specification page 8, bridging paragraph and page 9, first full paragraph), a plausible basis exists for inferring that the undisclosed properties of the instantly claimed polymer are intrinsic features of the cited embodiments of Strauss. Thus, as in the preceding rejection, the burden properly shifts to applicants to show that the property or characteristic recited in the claims represents an unobvious difference. *In re Best*, 195 USPQ 430 (CCPA 1977).

The prior art made of record and not relied upon is considered pertinent to applicants' disclosure.

EP '797 is cited as pertinent to medium density polyethylene (co)polymers comprising 0.15-0.50 wt.% of units derived from a carbonyl group-containing compound acting as chain transfer agent (note paragraphs 0035-36).

No claims are allowable at this time.

Art Unit: 1713

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner F. M. Teskin whose telephone number is (571) 272-1116. The examiner can normally be reached on Monday through Thursday from 7:00 AM - 4:30 PM, and can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on (571) 272-1114. The appropriate fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <<http://pair-direct.uspto.gov>>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

FMTeskin/05-11-07


FRED TESKIN
PRIMARY EXAMINER
